## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Jeffrey Scott Weaver

Examiner: Vincent M. Rudolph

Serial No.:

10/085,713

Group Art Unit: 2625

Filed:

Pebruary 28, 2002

Docket No.: 10010089-1

Title:

ENABLING PRINTING FEATURES FOR AUTHORIZED USERS

#### **DECLARATION OF PRIOR INVENTION UNDER 37 C.F.R. § 1.131**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir/Madam:

This Declaration is submitted to establish prior invention of the subject matter of the present patent application in the United States. The person making this Declaration is the inventor Jeffrey Scott Weaver.

Accompanying this Declaration are Exhibits A through D to establish conception of the subject matter of the present patent application in the United States prior to the earliest effective date of February 12, 2002 of the Berndt US Publication No. 2003/0151760 coupled with due diligence from prior to the earliest effective date of the Berndt publication up to the filing date of the present patent application (i.e., constructive reduction to practice).

Exhibit A (4 pages) includes a copy of HP Invention Disclosure No. 10010089 submitted by the inventor Jeffrey Scott Weaver and received by the HP Legal Department prior to the earliest effective date of the Berndt US Publication No. 2003/0151760. This invention disclosure describes subject matter of the present patent application.

Exhibit B (1 page) includes an original email dated November 8, 2001, a date prior to the earliest effective date of February 12, 2002 of the Berndt US Publication No. 2003/0151760, from patent attorney Paul Qualey of the law firm Thomas, Kayden, Horstemeyer & Risley, L.L.P to HP Patent Attorney-Outsourcing Manager Steven R. Ormiston forwarding a draft patent application based on HP Invention Disclosure No. 10010089 (i.e., the present patent application), and includes a reply email dated November 21, 2001, a date prior to the earliest effective date of February 12, 2002 of the Berndt US Publication No. 2003/0151760, from HP Patent Attorney-Outsourcing Manager Steven R. Ormiston to patent attorney Paul Qualey of the law firm Thomas, Kayden, Horstemeyer & Risley, L.L.P approving of the draft patent application based on HP Invention Disclosure No. 10010089 (i.e., the present patent application).

Declaration under 37 C.F.R. § 1.131 Applicant: Jeffrey Scott Weaver

Serial No.: 10/085,713 Filed: February 28, 2002 Docket No.: 10010089-1

Title: ENABLING PRINTING FEATURES FOR AUTHORIZED USERS

Exhibit C (1 page) includes a copy of a letter dated November 26, 2001, a date prior to the earliest effective date of February 12, 2002 of the Berndt US Publication No. 2003/0151760, from patent attorney Paul Qualey of the law firm Thomas, Kayden, Horstemeyer & Risley, L.L.P to HP Legal Administrator Betty Hinkle forwarding the Declaration and Power of Attorney and the Assignment for the patent application based on HP Invention Disclosure No. 10010089-1 (i.e., the present patent application) for signature by the inventor.

Exhibit D (1 page) includes a copy of a letter dated February 26, 2002 from HP Legal Administrator Betty Hinkle to patent attorney Paul Qualey of the law firm Thomas, Kayden, Horstemeyer & Risley, L.L.P forwarding the executed Declaration and Power of Attorney for the patent application based on HP Invention Disclosure No. 10010089-1 (i.e., the present patent application). Subsequently, on February 28, 2002, the patent application based on HP Invention Disclosure No. 10010089-1 (i.e., the present patent application) was filed.

From these exhibits, it can be seen that the subject matter of the present patent application was conceived in the United States prior to the earliest effective date of February 12, 2002 of the Berndt US Publication No. 2003/0151760 coupled with due diligence from prior to the earliest effective date of the Berndt publication up to the filing date of the present patent application (i.e., constructive reduction to practice).

As a person signing below, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: Date: May 21, 2007

Jeffred Sport Weaver

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EXHIBIT A

	INVENT	ION DISCLO	SURE		The state of the s	PAGE	ONE OF
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authorization. Su	ıbmit this disde	contained in this osure to the HP Le	gad Departmei	COMPANY CONF nt as soon as possi	IDENTIAL and may noted to be. No patent protection	ot be disclosed on is possible un	to others without prior fil a patent application is
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# Write in Dark Ink on Pront Side Only, Please

INVENTION DISCLOSURE	COMPANY CONFIDENTIAL	PAGE	OF
Signature of Witness(es): (Please by to obtain the algorithm	re of the person(s) to whom invention was first	disclosed.)	
The invention was first explained to, and understo	od by, me (us) on this date:	Day	of Signature
PHILLIP R. LUQUE Phill	Signature Sugar		o salata
Full Name	Signature	Date	of Signature
Inventor & Home Address Information: (If more th	an four inventors, include addi. information on	a copy of this form & attach to ti	nis document)
Inventor's Full Name Jeffrey Scott Weaver (On-File)	•		
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Please preserve all records of the invention and attach additional pages for the following. Each additional page should Description of invention: be signed and dated by the inventor(s) and witness(es).

A. Description of the construction and operation of the invention (include appropriate schematic, block, & timing diagrams; drawings; samples; graphs; flowcharts; computer flatings; test results; etc.)

(see attached page for basic description of e-label)

The e-label system being included in HP's next generation of printers will have an RFID tag reader system in the printer. This tag reader is to be used to communicate with e-label cartridges. The tag reader could also be used to communicate with a second tag brought in dose proximity to the printer to enable functionality, such as inverted into a provided slot or laid on top of the printer in a designated area. The printer firmware could be modified to enable the printer to detect such a tag, and then communicate with it in addition to the cartridge.

This capability could be used to implement controlled download of software into a printer or access to data to enable enhanced printing features. Examples of such features are fonts, printing of tickets, digital signatures, and photo or halftoning algorithms.

A tag containing Information on how to access the downloadable data is activated by being within the e-label reader's range. The tag could contain an URL or other address type information where the printer could get the desired data from. In addition, the tag could contain a key to authorize download of the data, and to enable usage of the data in the printer if the data has already been stored in the printer. For example, a font could be purchased by a user. The user would be sent a tag which both tells the printer how to access the font, and enables usage of the font only when the teg is present at the printer.

B. Advantages of the Invention over what has been done before.

Utilizes a system that will already be in the printer to perform additional functionality. Provides a secure system for controlling access to options and features.

Problems solved by the invention.

How to authenticate and/or license usage of optional features.

Automates the downloading and installation process.

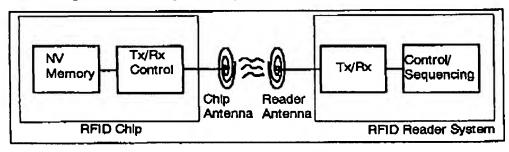
System is non-contact, so wear and tear is much less and reliability is higher.

Prior solutions and their disadvantages (if available, attach copies of product literature, technical articles, patents, etc.).

Manual download of data with a user-typed authorization key. Requires user to perform many steps and in many cases the accessed data can be used multiple times.

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Figure 1: Block diagram of RFID Tag/Reader System



#### RFID system, E-label system, and printer communication descriptions:

An RFID system has a transmitter/receiver which modulates an RF carrier according to standards defined by chip manufacturers. The RF energy generated is transmitted by an antenna, which is coupled to a tag antenna. The tag rectifies the RF and uses it to supply power to the chip, and also demodulates the transmitted commands/data. It then can store received data in the non-volatile memory, or can retrieve data for transmission back to the reader. To transmit data back to the reader, the tag typically uses load modulation, where a resistive load is switched across the chip power bus. This causes a change in the loading of the chip antenna, and this change is detected back at the reader by monitoring the power coupled. Several standard frequency and modulation schemes are in common use. The most popular frequency uses 13.65 MHz carrier frequency, although systems using anywhere from 100 kHz to several Gigahertz exist. Distances of up to several feet between tag and reader are possible at high powers, but most systems use limited power and see typical maximum distances of several inches. Most communication protocols for RFID tags include some mechanism to scan for multiple tags within the reader's range, to detect collisions (two or more tags attempting to respond simultaneously) and provisions to isolate an individual tag for communication.

Secure storage, communication, and identity authentication is a primary application of RFID technology. Data to be stored within the tag may be encrypted prior to transmission, and access codes or challenge/response techniques may be used to limit access to tag data or functionality.

E-label is an HP name for an RFID system to be used in HP's next generation of printers. An RFID tag reader will be built into the printer, and a tag will be hidden on the cartridge.

The e-label system being installed in HP's next generation of printers will be used to positively identify a given cartridge as genuine HP product, prevent fraud by toner refillers, and to keep track of numerous usage information such as toner quantity, printed page counts, dot counts, OPC revolutions, etc. This disclosure identifies additional uses for the system advantageous for future application of the system and possible enhancements.

For cases where a printer must transmit or receive additional information from a computer or network, many printers have direct network connections and can communicate directly over a network. HP's next generation of printers will have additional network intelligence allowing more sophisticated access to networked data. In the case where a printer does not have a direct network connection, it usually has a bi-directional communication capability directly with the computer it is connected to. Via the printer driver, the computer could then handle the network connection or data storage appropriately.

EXHIBIT B

## TOLLERUD, ANGELA (Non-HP-Bolse, ex1)

From:

ORMISTON, STEVEN (Non-HP-Boise, ex1)

Sent:

Wednesday, November 21, 2001 12:06 PM

To:

Qualey, Paul

Cc: Subject: Angela Tollerud (E-mail) **RE: Draft of Patent Application** 

Paul,

Okay. No changes. Steve Ormiston.

Steven R. Ormiston Outsourcing Manager, Patent Attorney Hewlett-Packard Co. Boise, ID (208) 396-2544 steve\_ormiston@non.hp.com

--Original Message---

From: Qualey, Paul [mailto:paul.qualey@tkhr.com]

Sent: Thursday, November 08, 2001 4:09 PM

To: 'steve\_ormiston@non.hp.com' Subject: Draft of Patent Application

# THIS IS A CONFIDENTIAL ATTORNEY-CLIENT COMMUNICATION

#### Steve:

Here is the draft of 10010089 for your review. Please provide me with your comments at your earliest convenience.

<<Utility Application.doc>> <<Fig01.vsd>> <<Fig0203.vsd>> <<Fig0405,vsd>> <<Fig06.vsd>> <<Fig07.vsd>> <<Fig08.vsd>> <<Fig09.vsd>> <<Fig10.vsd>>

Sincerely.

#### Paul

Thomas, Kayden, Horstemeyer & Risley, LLP. 100 Galleria Parkway, N.W. Suite 1750 Atlanta, Georgia 30339-5948 Phone (770) 933-9500 Fax (770) 951-0933

TKHR

EXHIBIT C

# THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.

ATTORNEYS AT LAW

INTERNATIONAL PATENT, TRADEMARK AND COPYRIGHT LAW AND RELATED LITIGATION CENTRAL FAX CENTER

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November 26, 2001

GEORGE M. THOMAS JAMES W. KAYDEN SCOTT A HORSTEMBYER, P.G. STEPHEN R. KRELEY JEFFREY R. KLESTER CANIEL, R. MCALURE DANIEL, J. GANTOS DANI R. GRESHAM

DAN R, GREEHAM

ROBERT E, STACHER II

J. SCOTT CULPEPPER

MICHAEL J. TEMPEL

DAVID R. RESLEY

M. PAUL GUALSY, JR.

ROBERT P, BIDDLEY

JEMBERS M. GRUDER

PETER A. MEYER

WILLIAM F, NEDEZZY

RAYMOND W. ARMENTROUT'

ROBERT A. BILAMA

CYMTHAJ LEE

M. ANDREW CRAIN

MONICA M. WONCHART

ROBERT B. DILAMEY III

CHEUSTICHHER B. LINDER, PLD

KENNETH C. BRILLEY

EDWINA T, WASHINGTON

SAMI O, MALAS

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Tel: 770-933-9500 Fee: 770-951-0933 (main) Betty Hinkle Hewlett-Packard Company Legal Dept. 314 11307 Chinden Blvd. Boise, ID 83714

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NOV 2 7 2001

H. P. BOISE LEGAL

RE: U.S. Utility Application

Title: Enabling Printing Features for Authorized Users

Inventor: Jeffrey Scott Weaver

You Docket: 10010089-1-1; Our Docket: 050830-1590

Dear Betty:

Enclosed herewith please find the utility application and drawings for the above-referenced invention. Also enclosed is the Declaration and Power of Attorney. Please have the inventor sign and date the Declaration and return it to our office, so we may file it with the U.S. Patent and Tradernark Office (USPTO).

Also enclosed is the original Assignment for the above-identified application. We understand that you will obtain the inventor's signature and ensure that the executed assignment is filed with the USPTO.

Please call if you have any questions or comments, or need any further assistance, regarding the above.

Sincerely,

THOMAS, KAYDEN,

HORSTEMBYER & RISLEY, LLP

M. Paul Qualcy Jr.

MPQ/slr Enclosures

Suite 1750, 100 Galleria Parkway, N.W., Atlanta, Georgia 30339-5948 U.S.A.

EXHIBIT D



Hewlett-Packard Company 11307 Chinden Boulevard Moil Stop 314 Bose, to 63714 www.hp.com

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MAY 2 2 2007

Betty Hinkle Legal Administrator

208 396 5319761 208 396 3958 Fax February 26, 2002

M. Paul Qualey, Jr. Thomas, Kayden, Horstemeyer & Risley, LLP Sulte 1750 100 Gatleria Parkway, N.W. Atlanta, Georgia 30339-5948

RE:

Hewlett-Packard Patent Application(s)

10010089-1

Our Ref(s).: 050830-1590 Your Ref(s).:

Dear Paul:

Enclosed please find the signed Declaration(s) and Power of Attorney(s) for the above-mentioned application(s).

The Assignment(s) have also been signed. It is HP's policy to record the Assignment after receiving the Filing Receipt. I will retain the Assignment(s) for filing out of our office.

If you have any questions or concerns, please let me know.

Regards,

Betty Hinkle by Juville Black Betty-Hinkle BH/iD

**Enclosure**